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IS 4514 (1968): Forceps, Tonsil Dissecting (Waugh's Pattern) [MHD 4: Ear, Nose and Throat Surgery Instruments]



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Bhartrhari—Nitiśatakam

“Knowledge is such a treasure which cannot be stolen”

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(Reaffirmed 1998)

Edition 1.1

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Indian Standard

**SPECIFICATION FOR FORCEPS,
TONSIL DISSECTING (WAUGH'S PATTERN)**

(Incorporating Amendment No. 1)

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BUREAU OF INDIAN STANDARDS
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Price Group 2

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TONSIL DISSECTING (WAUGH'S PATTERN)

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IS : 4514 - 1968

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Indian Standard

SPECIFICATION FOR FORCEPS, TONSIL DISSECTING (WAUGH'S PATTERN)

0. FOREWORD

0.1 This Indian Standard was adopted by the Indian Standards Institution on 21 February 1968, after the draft finalized by the Surgical Instruments Sectional Committee had been approved by the Consumer Products Division Council.

0.2 The formulation of Indian Standards on surgical instruments has been taken up on the recommendations of the Advisory Committee for Development of Surgical Instruments, Equipment and Appliances, Government of India.

0.3 Although other types of tonsil-dissecting forceps are available commercially, Waugh's pattern is widely popular and has been covered by this standard.

0.4 This standard forms one of a series on tonsil forceps. Others in the series are:

IS : 4487-1968 Forceps, tonsil artery (Birkett's pattern)

IS : 4488-1968 Forceps, tonsil holding (Muck's and White's pattern)

IS : 4490-1968 Forceps, dilating, Trousseau's

IS : 4504-1968 Forceps, peritonsillar

0.5 In preparing this standard, considerable assistance has been derived from the following:

IND/GS/MED/37(b) Forceps, dissecting, toothed, 7 in. Chief Inspectorate of General Stores, Ministry of Defence, Government of India.

IND/GS/MED/112(b) Forceps, dissecting, toothed (Waugh's), 20.5 cm. Chief Inspectorate of General Stores, Ministry of Defence, Government of India.

0.6 This edition 1.1 incorporates Amendment No. 1 (January 1979). Side bar indicates modification of the text as the result of incorporation of the amendment.

0.7 For the purpose of deciding whether a particular requirement of this standard is complied with, the final value, observed or calculated, expressing the result of a test or analysis, shall be rounded off in accordance with IS : 2-1960*. The number of significant places retained in the rounded off value should be the same as that of the specified value in this standard.

*Rules for rounding off numerical values (*revised*).

IS : 4514 - 1968

1. SCOPE

1.1 This standard covers the requirements for tonsil-dissecting forceps (Waugh's pattern), toothed, toothed with serrations, and serrated.

2. MATERIAL

2.1 Arms of the forceps shall be made from stainless steel conforming to Designation 22Cr13 or 30Cr13 of Schedule V of IS : 1570-1961*.

2.2 Rivets, guide-pin and check-pin, if used, shall be made either of the same material as used for the instrument or shall conform to Designation 20Cr18Ni2 of Schedule V of IS : 1570-1961*.

3. SHAPE AND DIMENSIONS

3.1 The shape and dimensions of the forceps (toothed) shall be as given in Fig. 1. The forceps (toothed and serrated) shall be as given in Fig. 1 except that the serrations shall be in accordance with Fig. 1A. Forceps (serrated) shall be in accordance with Fig. 1 except that its tips shall be (serrated) only in accordance with Fig. 1A.

3.2 The joint shall conform to 5 of Section 2 of IS : 3642-1966†.

3.3 The toothed end shall comply with Section 4 of IS : 3642-1966†. The teeth shall conform to the dimensions specified in Fig. 1 and the combination used shall be 1 in 2 teeth.

3.4 The serrations shall be of diamond pattern conforming to 2.3 of Section 1 of IS : 3642-1966† and shall be as given in Fig. 1A.

4. WORKMANSHIP AND FINISH

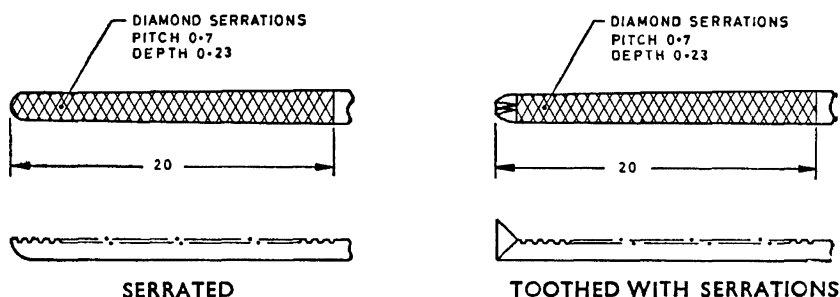
4.1 The arms of the forceps shall be symmetrical, balanced and shall open and close with even movement. The teeth shall be sharp, clean and bright, and shall so match as to register properly without overriding, sticking or locking. The registration shall correspond with the registration of guide-pin with guide hole when provided. The arm shall be free from scales, burrs, pits, seams and other surface defects. The forceps shall be passivated and polished bright. All edges of the forceps shall be smooth and even and shall not be sharp. The faces of the arms shall be highly polished. The serrations shall be clear and clean.

5. HEAT TREATMENT

5.1 The forceps shall be suitably hardened and tempered to give a uniform hardness of 430 to 490 HV.

*Schedules for wrought steels for general engineering purposes.

†General requirements for surgical instruments.



All dimensions in millimetres.

FIG. 1A ALTERNATE SHAPE OF JAWS

6. TESTS

6.1 Flexibility — The flexibility of the arms of the forceps shall be tested in the following manner:

- a) The arms of the forceps after maximum closure by manual compression shall not take a permanent set and the teeth shall continue to engage and disengage accurately without sticking.
- b) The joint end of the forceps shall be fixed in a vice so that the riveted or welded joint, or parallel portion of the folded joint, is gripped firmly. In the case of forceps with folded joint, the joint shall be tightly interleaved with an aluminium strip before fixing the forceps in the vice so that deformation of the joint is avoided. By the application of force at the tip of the arm, one arm of the forceps shall be deflected in a plane at right angles to the plane of the arm by a distance of 50 mm measured at the tip of the forceps. On release of the force, no permanent set shall be observed. The test shall be repeated on the other arm.

6.2 Load Closure — The teeth of the forceps shall just close when a load of 170 ± 10 gf be applied at the first finger groove from the tip.

6.3 Performance — A latex sheet 0.05 mm thick shall be stretched over the tip of one of the fingers and then gripped lightly by the teeth of the forceps. The forceps shall hold the latex sheet firmly without any tendency to slipping as judged when pulled through a distance of 5 mm. When the arms of the forceps are pressed further, the latex sheet shall puncture neatly and after puncturing the teeth, shall tear the latex sheet when the forceps is pulled, in the direction of the pull.

6.4 Corrosion Resistance — The instrument shall satisfy the boiling and autoclaving test as specified in IS : 7531-1975*.

7. MARKING

7.1 Each forceps shall be clearly and indelibly marked with the manufacturer's name, initials or trade-mark and words 'STAINLESS STEEL'.

7.1.1 The forceps may also be marked with the ISI Certification Mark.

NOTE — The use of the ISI Certification Mark is governed by the provisions of the Indian Standards Institution (Certification Marks) Act, and the Rules and Regulations made thereunder. Presence of this mark on products covered by an Indian Standard conveys the assurance that they have been produced to comply with the requirements of that standard, under a well-defined system of inspection, testing and quality control during production. This system, which is devised and supervised by ISI and operated by the producer, has the further safeguard that the products as actually marketed are continuously checked by ISI for conformity to the standard. Details of conditions, under which a licence for the use of the ISI Certification Mark may be granted to manufacturers or processors, may be obtained from the Indian Standards Institution.

8. PACKING

8.1 The forceps shall be wrapped individually in moisture-proof paper or polyethylene bag, taking care to see that the teeth are well protected. They shall be packed in a manner that coming into contact with each other is avoided.

*Method for boiling and autoclaving test for corrosion resistance of stainless steel surgical instruments.

INDIAN STANDARDS ON

Surgical Instruments

IS:

3318-1965	General requirements for surgical scalpels and knives
3319-1965	Surgical scalpels with detachable blades (Bard Parker type)
3320-1965	Surgical scalpels
3642-1966	General requirements for surgical instruments
3643-1966	Dissecting forceps (serrated and toothed)
3644-1966	Artery forceps (Halsted Mosquito pattern)
3645-1966	Artery forceps (Spencer Wells pattern)
3758-1966	Hooks, aural
3759-1966	Blades, skin grafting
3760-1966	Probe, aural, Jobson Horne's pattern
3767-1966	Hook, skin, Gillies pattern
3787-1966	Gag, mouth, Cleft palate
3788-1966	Specula, aural
3799-1966	Forceps, aural and nasal, crocodile action
3807-1966	Forceps, dressing, aural and nasal
4085-1967	Knives, amputating
4089-1967	Forceps, clip removing, Michel's
4094-1967	Forceps, sterilizer (Cheate's)
4244-1967	Retractors, skin, double ended
4245-1967	Needle holder (Gillies) combined with scissors, for plastic surgery
4275-1967	Scissors, Kilner's for plastic surgery
4281-1967	Scissors, Mc Indoe's, for plastic surgery
4282-1967	Forceps, dissecting, plastic surgery
4487-1968	Forceps, tonsil artery (Birkett's pattern)
4488-1968	Forceps, tonsil holding (Muck's and White's pattern)
4489-1968	Forceps, nasal turbinate, Luc's
4490-1968	Forceps, dilating, Troussseau's
4504-1968	Forceps, peritonsillar (<i>under print</i>)

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Amendments Issued Since Publication

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